

CLAIMS

I claim:

1 1. Device for the fabrication of a tire reinforcement, said device being
2 designed to fabricate a reinforcement made from a cord, said device comprising
3 a frame and being designed for use in cooperation with an essentially toroidal
4 form which is mounted on the frame and able to rotate about a rotation axis and
5 on which said reinforcement is progressively built up by laying arcs of said cord
6 along a trajectory desired for said cord on the surface of said form, said device
7 comprising:

8 a cord laying element through which the cord can slide;

9 an actuation mechanism mounted on the frame, to transport said cord
10 laying element in a cyclic, back and forth movement, bringing it in successive
11 cycles close to each of the ends desired for the cord in said trajectory, the
12 actuation mechanism comprising at least one main arm and two auxiliary arms,
13 namely a front auxiliary arm and a rear auxiliary arm, each auxiliary arm being
14 articulated on a geometrical rotation axis, the respective geometrical rotation
15 axes being essentially parallel to one another and a distance apart; and

16 pressing elements near each end of said trajectory, to apply the cord onto
17 the form at least at said ends;

18 wherein the main arm is mounted on one of the auxiliary arms via a
19 rotation axis parallel to said geometrical rotation axes forming an articulation
20 between the main arm and the auxiliary arm considered, and is mounted on the
21 other auxiliary arm by means of a cam follower which cooperates with an orifice.

1 2. Device according to Claim 1, in which the actuation mechanism is such that the
2 movement of the auxiliary arms is synchronous and can be adjusted to different
3 amplitudes.

- 1 3. Device according to Claim 1, in which the actuation mechanism is such that the
2 movement of the auxiliary arms is synchronous and is controlled by different
3 motors.
- 1 4. Device according to Claim 1, in which the slot is formed in the main arm.
- 1 5. Device according to Claim 4, in which the slot is located on the side of the
2 articulation opposite to the cord laying element.
- 1 6. Device according to Claim 1, in which the main arm directly supports the cord
2 laying element.
- 1 7. Device according to Claim 1, in which the cord laying element is an eyelet.
- 1 8. Device according to Claim 1, used with a motorization system which controls in
2 synchronism the rotation of the form, the actuation mechanism and the pressing
3 elements, in which the actuation mechanism is mounted on a support which itself
4 moves relative to the rotation axis of the form, this movement itself being
5 controlled in synchronism with the rotation of the form by the motorization
6 system..
- 1 9. Device according to Claim 8, in which the support is moved parallel to the axis of
2 the form.
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